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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,319

10/12/2006

Stephen J. Russell

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EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,319	Applicant(s) RUSSELL ET AL.	
	Examiner Norca L. Torres-Velazquez	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/29/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-21, 33-36 and 41-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-21, 33-36 and 41-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 9, 22-32 and 37-40 have been canceled.
2. Independent claim 1 has been amended to require that the “fabric comprises hydroentangled and consolidated fibers in each of the layers”. No new matter was found.
3. Claims 1-8, 10-21, 33-36 and 41-45 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-8, 10-14, 16-21, 33-34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le ROY (US 5,475,904) in view of VUILLAUME (US 5,396,689).**

Le ROY composite laps that comprises two basic laps that can be joined together by needling, the laps may be fibrous laps which have been woven or preconsolidated by mechanical or thermal or chemical means or by any other method of consolidation. The basis laps may consist of the same material or materials of different origin and structure and of different weights and densities. (Col. 2, lines 13-22) The reference teaches introducing an interleaved constituent through longitudinal ducts constructed within the ribs in such a way that the interleaved constituent is located between the basic laps. (Refer to Col. 2, lines 1-5) The interleaved constituent may be introduced in the form of a fluid and may have specific properties such as insulating, absorbent, among others. (Col. 2, lines 27-34) Complementarily, or alternatively,

Art Unit: 1794

the interleaved constituent may incorporate threads or filaments of materials such as synthetic, animal and mineral materials. (Col. 2, lines 35-38) The reference discloses a basic lap comprising a preconsolidated non-woven polyester material weighing 80 to 150 gsm and a second basic lap consists of a preconsolidated non-woven viscose material weighing 150 to 230 gsm. (Col. 7, lines 36-40)

With regards to the thickness of the nonwoven, it is noted that while the reference is silent to such property, it discloses different embodiments related to different applications/final products. It is the Examiner's position the thickness of the material would be an obvious modification according to the end-use of the fabric. It is well settled that determination of optimum values of cause effective variables such as thickness is within the skill of one practicing the art. In re Boesch, 205 USPQ 215 (CCPA 1980). With regards to the type of different functional materials that could be used, it is the Examiner's position that these would be obvious in view of the teachings of Le Roy that teaches that the interleaved constituent may be materials such as fluid, powder, filaments, wires... and further teaches that these materials impart specific properties to the composite lap. (Refer to Col. 2, lines 5-50)

While LE ROY teaches interengagement for joining the laps using needling, it is silent to the use of water jets (hydroentanglement).

VUILLAUME relates to a process of making a composite textile structure containing two nonwoven fibrous sheets with a reinforcing structure incorporated in between. The reference teaches using "water jets" as the mechanical needling treatment to bond the nonwoven sheets forming the composite. The reference teaches that the composite formed is subjected to the

Art Unit: 1794

action of a mechanical treatment which makes it possible to implant the fibers of one sheet within the other and vice versa. (Refer to Abstract and Col. 3, lines 58-61)

It would have been obvious to one having ordinary skill in the art of multilayer composites to use water jets for needling in the construction of LE ROY as an alternative to the needling mechanism used by LE ROY as both references teach achieve the similar result of implanting fibers of one sheet within the other sheet and vice versa. A reference may be understood by the artisan as suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 “Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

6. Claims 15, 35-36 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over LE ROY and VUILLAUME as applied above, and further in view of SUZUKI et al. (US 4,377,615).

SUZUKI et al. relates to nonwoven fabrics having multilayer structures. The structure taught by the reference is to be used as the outer cover in applications such as sanitary napkins, disposable diapers and the like. (Col. 1, lines 6-26) The reference teaches using a hydrophobic layer and a hydrophilic layer (refer to col. 2, lines 3-19). One having ordinary skill in the art would provide the construction LE ROY with a at least one hydrophilic layer and at least one hydrophobic layer motivated by the desire of producing a capillary effect in the material that will allow for moisture or fluid wicking in a direction of the fabric. Such property would make the construction useful in applications such as diapers in which superior permeability and prevention

Art Unit: 1794

of back flow of body exudates against the nonwoven fabric is desired and when dryness is desirable in the surface.

7. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over LE ROY and VUILLAUME as applied to claim 1 above, and further in view of TOWERY et al. (WO 88/01570).

TOWERY et al. relates to water-vapor-permeable yet waterproof coated fabric prepared by applying a polyurethane resin to the fabric. (Abstract) Thus, one having ordinary skill in the art would have provided the structure of LE ROY with a polyurethane coating to achieve the predictable result of producing a fabric that could be used for example, in garment applications which require perspiration and moisture vapor to escape from the inside while being used, while repelling water from the outside as taught by TOWERY. (Refer to page 4, first paragraph). A reference may be understood by the artisan as suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 “Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

Response to Arguments

8. Applicant's arguments filed 9/29/08 have been fully considered but they are not persuasive.

- Applicants argue that LE ROY teaches away from the present invention.

It is noted herein that it is the Examiner's interpretation that the structure provided by the prior art of LE ROY provides a nonwoven fabric comprising at least two separate but interconnected layers provided with discrete interconnections and provides voids between the two layers of fabric. For example, in Fig. 8 of the reference: laps 80 and 82 are preconsolidated lap layers equated herein to the claimed at least two layers, the longitudinal join lines 14 are equated to the claimed interconnections and the interleaved constituents 84 are provided within voids between the two layers which are equated to the claimed voids. The only difference is that the interconnections are provided by a mechanical process that involves needling versus hydroentanglement. The Examiner further relies on the teachings of VUILLAUME that provides a similar construction in which two layers are interconnected but uses hydroentanglement as the mechanical needling treatment to bond the nonwoven sheets forming the composite. The reference teaches that the composite formed is subjected to the action of a mechanical treatment which makes it possible to implant the fibers of one sheet within the other and vice versa. (Refer to Abstract and Col. 3, lines 58-61)

It is the Examiner's position that the LE ROY reference does not teach away from the present invention, and upon comparing the structures disclosed in Fig. 8-13 of the LE ROY reference finds that the structure is very similar to that disclosed in Fig. 2 of the present application. It is the Examiner's position that the prior art of LE ROY in view of VUILLAUME read on the present invention as claimed.

Art Unit: 1794

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Norca L. Torres-Velazquez/
Primary Examiner, Art Unit 1794

December 18, 2008